



The Halifax Amateur Radio Club

# REFLECTOR

PO BOX 663  
HALIFAX NS  
B3J 2T3

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club web site is [www.halifax-arc.org](http://www.halifax-arc.org)



## Happy 2005



HARC Club Station phone number - 490-6421  
See the HARC Web site at: <http://www.halifax-arc.org>

### Our executive and committees.

Position Name & Call Sign	Phone #	E-Mail
President - Bill Elliott, VE1MR	865-8567	ve1mr@rac.ca
First V.P. - Fraser MacDougall VE1WO	865-4198	ve1wo@rac.ca
2nd V.P. - Darryll Perrin, VE1HUP	826-1439	ve1hup@rac.ca
Secretary - Howard Dickson, VE1DHD	823-2024	dhedickson@hfx.eastlink.ca
Treasurer - John Goodwin, VE1CDD	865-5731	ve1cdd@rac.ca
Member at Large, Tom Caithness, VE1GTC	477-7081	tom.caithness@ns.sympatico.ca
Club Station Mgr. - Pat Kavanaugh, VE1PHK		ve1phk@rac.ca
Past President - Dick Grantham, VE1AI	434-8046	ve1ai@rac.ca

### Committees/Offices/Prime Contacts

Public Relations: Wayne Harasimovitch, VE1WPH	832-3660	ve1wph@rac.ca
IPARN and Brit Fader Memorial QSL Bureau Manager - Bob Burns, VE1VCK	865-9414	ve1vck@rac.ca
EMO Coordinator - Dave George, VE1AJP	466-8723	dgeorge@is.dal.ca
Reflector editor - Lynn Bowser, VE1ENT	865-8567	ve1ent@rac.ca
Reflector Dist. - Tom Caithness, VE1GTC	477-7081	tom.caithness@ns.sympatico.ca
Membership - Tom Caithness, VE1GTC	477-7081	tom.caithness@ns.sympatico.ca
Web page - Rob Ewert, VE1KS,	826-1705	ewertr@hfx.eastlink.ca
Basic ham course - Howard Dickson, VE1DHD	823-2024	dhedickson@hfx.eastlink.ca
EMO Trailer Assembly coord - David Musgrave, VE1EDA	435-4333	ve1eda@rac.ca
Flea market 2004 Chair' man - Ed Grace, VE1EGG	865-8295	ve1egg@rac.ca
Field Day coordinator - NEEDED		
RAC Asst Director - Wayne Marchand, VE1WJM,	860-1580	ve1wjm@rac.ca
NSARA Director - Joe MacPherson, VE1CH	852-1295	ve1ch@rac.ca
Frequency coordinator for Nova Scotia - Bev Reynolds, VE1TL		

### Take-15 Net Controllers

**NOTE:** There have been some changes. This will be the rotation. If you cannot take the net on your particular evening get in touch with one of the others and trade places with them. If I have left any one off the list, or you want to join, please let Bill Elliott, VE1MR, know.



Jan.	16	Tom	VE1GTC
Jan.	23	Win	VE1WIN
Jan.	30	Peter	VE1PJW
Feb.	6	Herb	VE1HX
Feb.	13	Doug	VE1LDL
Feb.	20	Dave	VE1EDA

## NOTICE OF MOTION

There will be motion to approve the club budget for 2005. The executive has voted to approve this budget and bring it to the members. This will be the only vote on the motion of approval for the budget. Please attend this important meeting.

The HRM EMO/ham Advisory  
Committee Web page is at  
[www.ve1hre.ca](http://www.ve1hre.ca)

The **General Monthly Meeting** of the Halifax Amateur Radio Club will take place Wednesday, January 19, 2005 at 1930 hours (7:30 PM), at the former Bloomfield School building (corner of Almon and Agricola streets). The meeting will be held in the Multi-Purpose Room. Our speaker for this evening will be Dick VE1AI speaking on certificate hunting

Guests are welcome.

The members of the HARC congratulate our 2005 executive who were elected at our Annual Meeting in November. (See list this page)

*May the year be one of fun,  
progress, cooperation and  
participation by all. -ed.*

The HARC Reflector is pleased to announce that Dave Nimmo, VE1NN, and Rob Ewert, VE1KS, are now accredited examiners

## FOR SALE

Open to club members, there is a surplus rotator for sale. The rotator is a Ham III with control box, tested and in fairly good condition. Asking \$275 or reasonable offer. Offers accepted until Jan. 19th. Contact Howard Dickson, VE1DHD as shown above.

*Take out the fortune  
before you eat the cookie.*

**Deadline for submissions to the  
February Reflector is  
Saturday, Feb. 5, 2005**

*Events for Your Calendar*

February – Ham Breakfast

June 4 will be the date of the 2005  
DownEast Flea Market

August 13&14,. 2005 -MS Bike Tour  
The 6th annual Search & Rescue  
Competition will take place **Sept. 9  
to 11, 2005**. Club co-ordinators for a  
special event station are Dick,  
VE1AI, and Scott, VE1QD.

HARC 's **Digital Communication  
Special Interest Group** aims to ex-  
periment with as many digital modes,  
software and hardware as possible.  
If you're interested, contact John,  
VE1CDD, at [ve1cdd@rac.ca](mailto:ve1cdd@rac.ca) or by  
phone (865-5731)

Tune in to the **EMO NET** conducted  
by David, VE1EDA, each Sunday  
evening at 1930 local (7:30 PM) on  
VE1PSR repeater (147.27).  
The goal of the net is to keep all  
Amateur's informed on any news  
about EMO and to increase the inter-  
est in emergency preparedness.

**An emergency preparedness event  
is being planned.  
Tune into the Take 15 Net  
for more information.**

The **Club station** is a good space for  
ham radio activities but **please re-  
serve your date & time** with Station  
Manager Pat Kavanaugh, VE1PHK  
(E-mail [ve1phk@rac.ca](mailto:ve1phk@rac.ca))  
This is to prevent the disappointment  
of arriving at the Club Station and  
finding someone else has booked it  
for the same time you wanted to use  
it. **So booking with Pat is a must!!**



**Congratulations to**  
Tom Cohoon, VE1TA, who  
passed his **Advanced** Amateur  
Radio exam this December!

The real challenge was to get  
Tom away from distractions and sit-  
ting down long enough to actually  
write the test. Nice that his "papers"  
finally reflect his skills. -ed.

**The HARC sincerely thanks**

the anonymous donor who  
left a Yaesu FRG-7700 Re-  
ceiver as a gift for the club  
at the front desk of the  
Bloomfield Center. The lady at the  
desk informed Gary, VE1RGB, of  
this when he was at the club one  
night for his CW class. She said  
the benefactor didn't leave his  
name.



Gary has deposited the rig in the  
radio room for further disposition.

**2005 KCARC February CW  
Contest** Visit the KCARC Web  
site for contest rules.  
<http://www.kcarc.ns.ca>

**Puzzler – Do You Know?**

Who was the first person  
(and possibly the only  
person) in the world to be  
assigned a permanent amateur call-  
sign without a number in it?



*Answer on page 7*

Looking for two speakers for the  
headset we use at different events.  
These speakers are 2 1/4 inches  
round by 3/4 high and 65 ohms.

These speakers can be found in  
various gear. The old computers  
usually has one.

Anything 2 1/4" round and 3/4"  
high would be great.

73 John VE1CDD

A new stock of **Anderson  
Powerpole connectors** is now on  
hand. If you have not already con-  
verted all your gear to Powerpole  
connectors you should consider do-  
ing so. Place orders with Tom  
Caithness, VE1GTC by E-mail at:

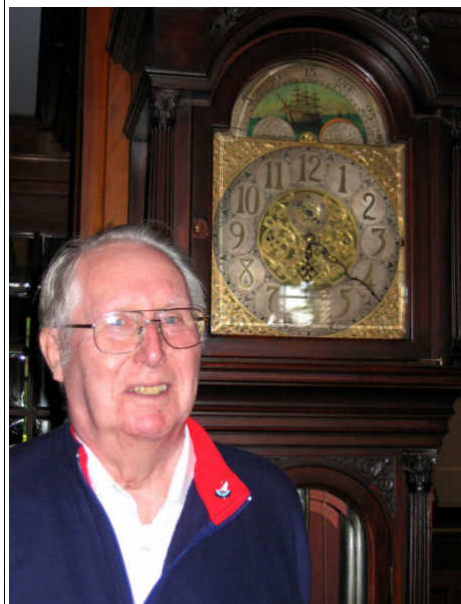
[tom.caithness@ns.sympatico.ca](mailto:tom.caithness@ns.sympatico.ca)

Price = \$1.25 each (for a red and  
black connector for one complete  
end). To make a complete mating  
pair will require 2 connectors.

**Congratulations to  
Winfield Hartlin, (VE1WIN)**

December 5 Win was made an Hon-  
orary Member of the Toronto Marine  
Amateur Radio Club for his contribu-  
tions to the Mississauga Maritime  
Net along with his excellence in the  
philosophy of amateur radio.

Win Hartlin (VE1WIN)

**Where to get Callbooks**

The Maritime Provinces Callbook  
2004 is available at Cohoon's Ap-  
pliance Service at 109 Ilsley Ave.  
in Burnside Industrial park during  
their open hours of  
8:30 AM to 5:00 PM Monday  
through Friday and  
Saturdays 10:00 AM to 2:00 PM.

If you hear someone from  
out of town asking where they can  
get a callbook then this is proba-  
bly their best bet on short notice.

**Are you up to date with your  
HARC membership dues?**

Yearly rates are as follows:

Full = \$25 Associate = \$15  
Family (2 members) = \$35 + \$10 for  
each additional family member at  
same address (only 1 newsletter)

*You never really learn to swear until  
you learn to drive.*

**PRESIDENT'S MESSAGE MORE HAPPENINGS AT VE1PSR**

It seems I have spent more time at VE1PSR site lately than I have in the past 3 years. On a Friday in December I received a call from Barry, VE1JRG, the HRM EMO Co-ordinator, telling me that the HRM Works department wanted the building that VE1PSR was housed in and he had a meeting scheduled with them for the following Monday Afternoon. I called a few people to be there in case I could not make it from my dentist appointment and we all met with Barry and the Works people at the site. We were promised a 12' X 14' building to replace the old one and we discussed the placement and time line for the move. Then we turned off the repeater and link equipment and disassembled it all and moved it into the Works building for temporary storage. My thanks to Pat, VE1PHK, Fraser, VE1WO and Wayne, VE1WPH for helping with this move which was accomplished in about 1 ½ hours. This included removing all the coaxial cables from the old building and waterproofing them in a bundle. The next day we checked the site several times and late in the day found our replacement building was there. On Wednesday morning several people took a look at what was delivered and it was a mess and just placed on the ground without blocking and it had shrunk to 10' X 12'. I spoke with the Works people on Wednesday afternoon and they said they would get the crane in and block it up by Friday with the electrical hookup soon after. Meanwhile several people heard what was going on and one volunteered to clean out the building. I would like to express my thanks to Emile, VE1ESP for a job very well done in cleaning the garbage out of the building. On checking the site Friday nothing had been done. Nothing was done the next week in spite of promises. Finally the following Monday the building was put in its proper place and blocked up ready for electrical hook up. The electricians worked on it Tuesday and thought they would be finished that day or at worst very early Wednesday. So just over two weeks after we turned everything off I again called several people to help reinstall the equipment. On arrival we found the electricians nearing completion; they found the job took a bit longer than they thought. Wayne VE1WPH could not stay long so had to leave before we could begin moving things back into the building. My thanks to Fraser, VE1WO, Pat, VE1PHK and David, VE1NN for helping to reinstall the equipment and hook it all back up again. Currently the VHF repeater, the UHF repeater, all UHF links and the local packet gear is all hooked up and working. We had a slight problem with the main UHF link out to the system and had it working when we left but it failed later on. The reinstallation was the Wednesday before Christmas and Fraser, VE1WO and I were back at the site January 3 to solve the link problem which we did fairly quickly. We removed several adaptors and remade a cable connector that was loose. We also tied the coaxial cables to the wall to get them off the floor. I also took this opportunity to remove the 6M radio to take home for repair or replacement. Hopefully I can get that reinstalled and working in the near future.

73 - Bill, VE1MR

**BRING CERTIFICATES**

As you see from this month's notice of meeting, Dick, VE1AI will be speaking on certificate hunting. If you have any certificates you would like to bring for the show and tell portion, please bring them along to the meeting. Many people qualify for certificates just through casual operating.

**EMO EXERCISE**

Exercise "Sandpiper " will be coming up in April of 2005. The purpose of the exercise will be to refresh the Amateur operators with passing of messages, to test the call out system, to test drive the Tel com plan. And MOST of all have fun in doing so. We will be conducting the exercise ourselves and it will not be a scenario type, but sending messages composed by the operators, problem solving, and reporting any deficiencies found in the operation.

Tom Caithness, VE1GTC

**DARC EXECUTIVE**

Congratulations to the new DARC executive elected at the annual meeting January 8, 2005.

President: - Leo Slade, VE1LS  
Vice Pres.: - Allan Otto, VE1KAO  
Sec.: - George Teretzek, VE1BZF  
Treas.: - John Brady, VE1WZ  
Dir. at large: - Don Wilcox, VE1CAF

**NET CONTROLLERS**

I have added two new net controllers and I would like to see at least two more if possible. It is an easy job and with an increasing number of net controllers you would only be doing the net a few times a year. This is an easy way to do something for the club

Thank you for reading.

Bill Elliott, VE1MR  
Phone - 865-8567  
E-mail - ve1mr@rac.ca

**DX n' HF**

One of the most prestigious awards for DX activity on the HF bands is the ARRL's DX Century Club (DXCC). While it does not take very long for a new and determined operator to reach that magical 100-country mark, the excitement of chasing those first DX countries is unforgettable! Moreover, the addiction to the chase has kindled a life long passion for DXing in many a ham. As we climb the DXCC ladder that excitement remains, but our quest becomes more skilled and takes on almost mystical properties. When we reach the top, then most of us turn to completing 5 Band DXCC, Worked All Zones (WAZ) and other awards. One relatively new and very interesting award is called the ***DX Challenge***. It extends the chase beyond DXCC, WAZ and the other main DX awards, and sets a very high standard for Dxers to reach for.

At the present time there are 335 current entities listed on the ARRL DXCC list. If one has worked each of the current entities on all ten bands from 160 – 6 meters then the total number of possible current ***band-countries*** is 3350. The ***DX Challenge***, a part of the DXCC Awards system, uses this metric to provide another goal for Dxers. How many band-countries can you work? With a little thought, you will quickly appreciate how difficult this challenge can be. The entry-level certificate (actually a plaque) from the ARRL is for those who have worked at least 1000 band-countries since the beginning of the DXCC Award on 15 November 1945. One can receive endorsements for each 500 additional band-countries. QSL card confirmations are taken from your DXCC records. At the present there are 1336 people registered for the ***DX Challenge***.

Here are some revealing statistics. The person with the most band-countries is John, W4DR who has worked 3083 band-countries! This is an awesome number, since there are only 267 new band-countries he can work, or an average of 26.7 per band. Just consider the challenge presented by 160 and 6 meters in achieving a high country total. There are thirteen Canadians registered, including the following people:

Rank	Call	Name	Band-Countries
68	VE3XN	Gary	2567
155	VE3FF	Dragan	2271
201	VE3EXY	Nenad	2151
396	VE1DX	Paul	1719
406	VE6LB	Gerry	1688
459	VA5DX	Doug	1588
568	VE1ZZ	Jack	1484
620	VE3VHB	Mike	1423
866	VE3QAA	Bert	1225
1093	VY2RO	Bob	1095
1104	VE7VF	Dave	1088
1221	VE2WY	Ross	1040
1225	VE6AX	Dick	1039

The Maritimer with the highest total is Paul, VE1DX, with 1719 band-countries. He is in 396<sup>th</sup> place. When I register, my 1727 band-countries will put me in 391<sup>st</sup> place. Just think for a minute about what personal operating patterns and skills are needed to be at the top of this game. Where are you in the listing? Who is the champion DX Challenger in HARC? Atlantic Canada?

73 de Scott, VE1QD

**Bad News: from December**

The HRM Ground Search & Rescue volunteers had **6 radios stolen** from their command vehicle. That represents \$5,000 worth of fund raising efforts.

If you have any information which could help in the recovery of the radios or apprehension of the individual or individuals responsible for the theft please pass it on to the police or "Crime Stoppers".

Note: The non-emergency phone # for the police is 490-5052

From the ARRL Letter, Vol. 23, No. 45 **New 60-meter beacons** are on the air; GB3WES in Cumbria, England, and GB3ORK in Scotland's Orkney Islands join GB3RAL in Oxfordshire (on the air since mid-2003). All transmit on 5290 kHz.

**From the ARRL Letter, Vol. 23, # 48**

**SCAMP** (Sound Card Amateur Message Protocol) On-the-air testing of the digital communication protocol began in late November, and the first transcontinental communication using SCAMP occurred on Dec. 4.

SCAMP is intended for transmitting messages--text with binary attachments--via 2-kHz bandwidth HF and VHF voice channels. SCAMP uses the Redundant Digital File Transfer (RDFT) transport layer, developed by Barry Sanderson, KB9VAK, with the addition of Automatic Repeat Request (ARQ)

*The one thing that unites all human beings, regardless of age, gender, religion, economic status or ethnic background, is that, deep down inside, we ALL believe that we are above average drivers.*



*We Canadians should be proud of our own. Here's something Helen, VE1HMR, found on the web*

The Friends of CRC Association Articles and Anecdotes

Remembrances of a Radio Scientist  
by John S. Belrose

*And from the website, here's a snippet from the transcript of a talk by John S. (Jack) Belrose, VE2CV. To read more go to the web. Ed.*

"I am Technical Advisor to the American Radio Relay League in the areas of radio communications technology, antennas and propagation (since 1981), and I have published many articles in QST, QEX, Ham Radio, Communications Quarterly, and in several articles in The ARRL Antenna Compendium series publications (my latest article is to be published in Volume 7) . I am a Fellow of The Radio Club of America, and a Senior Life Member of the IEEE (Antennas and Propagation Society). I have been a licensed radio amateur since 1947 (present call sign VE2CV). The station license for the CRC amateur radio station (such as it is nowadays) VY9CRC is held in my name.

I am largely responsible for the setting up and management of the CRC Fessenden Post Graduate Scholarship program. 2 new candidates receive a scholarship each year (a \$5000 supplement to the NSERCC Scholarship Program), to promote public awareness and recognition of the life and heritage of RAF, and University research in the fields of radio science and radio communications

John S. (Jack) Belrose, PhD  
(Cantab), VE2CV, 15 January 2002

*If you had to identify, in one word, the reason why the human race has not achieved, and never will achieve, its full potential, that word would be "meetings."*

## TOSHIBA TV SENDS DISTRESS SIGNAL ON 121.5 MHZ

On October 2, a 20 year-old college student in Corvallis, Oregon was visited at his apartment by a contingent of local police, civil air patrol and search and rescue personnel. Seems that the student's year-old Toshiba flat-screen TV was emitting an international distress signal picked up by satellite on 121.5 MHz. "They'd never seen [a] signal come that strong from a home appliance," the student said. "They were quite surprised. I think we all were." Considering some of the material being broadcast today, can anyone blame a TV for calling for help?

Courtesy of Rob VE1KS  
ewertr@hfx.eastlink.ca

Have you checked in to the AMSAT-NA Web site

<http://www.amsat.org>  
since June 29, 2004 when it was redesigned. The June 29 date coincides with the successful AMSAT-OSCAR Echo launch.

From the ARRL Letter, Vol. 23, # 45  
November 12, 2004

"Experimenters' Wednesday" suggestion box: AMSAT-NA has set up an e-mail address <ao51-modes@amsat.org> for Echo satellite (AO-51) users to submit suggestions for "Experimenters' Wednesday" operations. AMSAT invites users to let the AO-51 ground control team know which modes they're interested in seeing on the satellite for the weekly experimental period. The FM voice repeater is turned off on Experimenters' Wednesdays. The AMSAT Echo Web page includes the planned monthly Echo schedule and additional information. AO-51 ground controller Mike Kingery, KE4AZN, says he will post details about operating mode, updates to the operating plan and other timely information typically 2 or 3 times each week.--AMSAT News Service

## Book Review

Out of Thin Air

The Story of CFCY "The Friendly Voice of the Maritimes"

by Betty Rogers Large and  
Tom Crothers

Published by Applecross Press

Charlottetown PEI in 1989

ISBN 0-9694205-0-1

This is an enjoyable read, illustrated with some wonderful photos. It tells the story of Keith Sinclair Rogers and his fascination with wireless, from experimenting in the attic and bathroom of his parent's Charlottetown home in 1907 through the birth of CFCY and that radio station's growth to be "the friendly voice of the Maritimes". This book gives a glimpse of the ingenuity, tenacity and passion of radio pioneers such as Keith Rogers who built generations of transmitters and receivers so that voices, music and other sounds could be sent and received with better and better signal quality and range.

XAR, one of the earliest government issued licenses for wireless communications was issued to Keith Rogers at the Charlottetown Armory, 1909.

The broadcast license for CFCY, issued August, 1925, #42, was the first commercial license in Eastern Canada. And the radio station and the Rogers children grew up together in a manner that would be impossible in the corporate structures of today. After all, their home and Walter Burke's living room were "studios" for broadcasts in the early days.

Many of the people who appear in this book have familiar names and I was pleased to recognize the young Lorne Finley (VE1KLF) in a photograph on page 143.

Page 156 shows Keith Rogers, VE1HI by his ham station and a reproduction of his QSL card. He was an active amateur radio operator until his death in 1954

*Thank you to Lorne Finley for letting me read his copy of this book -ed.*

### Halifax Amateur Radio Club Minutes of the General Monthly Meeting of Wednesday, November 17<sup>th</sup>, 2004

President Bill (VE1MR) called the meeting to order at 1930 with 35 members in attendance.

#### Executive in attendance:

Bill Elliott (VE1MR) – President; Dick Grantham (VE1AI) Past-president; Fraser MacDougall (VE1WO) – First Vice-president; Second Vice-president – Rick Gardner (VE1RGG); John Goodwin (VE1CDD) – Treasurer; Howard Dickson (VE1DHD) – Secretary; Pat Kavanaugh (VE1PHK) – Station Manager; Tom Caithness (VE1GTC) – Member-at-Large.

**Silent Keys:** VE1IB – Gordon Burchell of Dartmouth.

**Guests:** VE1DRU – Drew Keating of Halifax, and VE1KLR – Martin Swinimer of Martins River Nova Scotia.

#### Minutes of the monthly meeting of October 20<sup>th</sup>, 2004:

Approval of the minutes of the October monthly meeting as published in the November 2004 *Reflector* was moved by Peter (VE1PJW) and seconded by Dave (VE1EDA) – **Motion carried.**

#### Executive Reports:

**Treasurer** – John reported a current bank balance of \$7,551. The year-end fiscal report will be presented at the AGM to follow.

**Secretary** – Howard (VE1DHD) reported on his appointment as the Atlantic Region Correspondent for the Amateur Radio Bulletin that is published weekly by Jim Taylor – VA3KU. Howard reminded the membership that the Bulletin is available on line in full colour at: [www.hfradio.net](http://www.hfradio.net), and arrangements can be made to have it delivered weekly by email (without pictures) by contacting Jim Taylor. To Subscribe to this bulletin and have it delivered to your e-mail box automatically every week, please put your name and callsign (if

you have one) in the body of the text and send message to: [hfradio@look.ca](mailto:hfradio@look.ca)

**President** – In response to a question from the floor, President Bill reported that he had no recent information on the possible closure of the Bloomfield School.

**First Vice-president** – Fraser reported that the new order of 200 PowerPole connectors had arrived.

**Second Vice-president** – Rick (VE1RGG), informed the membership that the Door Prize for the evening would be an under-the-counter fluorescent light fixture. He also reminded the membership that Dick (VE1AI) would be the guest speaker in January and would speak on award chasing and contesting. Members who had awards or certificates should bring them along to that meeting. There will not be a December meeting, rather the Club Christmas Party will be held on December 15<sup>th</sup>.

**Past-president** – Dick (VE1AI) reported on the great contest weekend at Jim Fisher's Contest Station during the CQ World Wide SSB competition in October.

**Station Manager** - Pat (VE1PHK) had nothing to report.

**Member-at-Large** – Tom reported that the advance bookings for the Christmas party are encouraging and he expects a good turnout from the membership. The dinner will take place at the Dragon King Buffet in Bayer's Lake starting at 7:00 pm on Wednesday, December 15<sup>th</sup>.

#### Committee Reports:

**Membership** – Tom (VE1GTC) reported that the 2005 membership drive is underway. Those who have not yet paid dues for 2005 (\$25) are encouraged to do so as soon as possible.

**Search & Rescue** – Dave (VE1AJP) reported several successful searches for lost hunters as the 2004 hunting season gets underway.

**EMO** – Dave reported the activation of Reception Centres during the recent province-wide power outages that resulted from the late-fall snow storm that brought heavy wet snow and high winds to the province.

**Field Day 2004** - Bill reported on the tremendous success that the Club had achieved in taking the 2-Alpha class trophy again this year with 8888 points, but also in coming first overall in Canada. Bill thanked all of the members who worked hard to make Field Day such a huge success.

#### Old Business:

**Field Day 2003** - Bill reported that the 2-Alpha class plaque had been re-engraved and sent off to the newly acclaimed VECTOR Club winners in BC.

**Cable for Amplifier** – Dick asked if any progress had been made in getting a cable to connect an amplifier to the Club 990 HF radio. Pat (VE1PHK) reported that they would be making one up. Dick also indicated that he would like to have some of the newer members and members of the 2004 Basic Ham class participate in the RAC Winter Contest from the Club station this December.

#### New Business:

**Field Day 2005** – There was a good discussion (following the publication of a list of pros and cons for the 2-Alpha and 2-Foxtrot Field Day classes in the November HARC *Reflector*) concerning the direction that the Club should go for the 2005 Field Day and for future Field Days.

**Motion** by Howard (VE1DHD), seconded by Dick (VE1AI) that "HARC alternate annually between the 2-Alpha and 2-Foxtrot classes, with 2-Foxtrot being the class of choice for 2005". After a heated discussion, there was a **motion to table** made by Fraser (VE1WO), seconded by Peter (VE1PJW). **Motion carried.**

**SSTV** – Jim (VE1SFX) suggested establishing a formal net for SSTV. President Bill requested that Jim de-

(Continued on page 7)

*Minutes (Continued from page 6)*

velop a formal proposal and bring it to the January meeting of the Club.

**Reports** – It was announced that Jerry Ledoux – VE1ANX had donated all of his Ham gear to the Club. A list of equipment was provided to the Secretary and a letter of thanks will be sent to Jerry. There was also an anonymous donation of a Yeasu FRG7700 Receiver to the Club.

**Door Prize** - was an under-the counter fluorescent light fixture and it was won by Spud – VE1BC.

**50:50 Draw** – the draw (\$15.50) was won by Bob (VA1TX).

The Annual General Business Meeting followed immediately.

**Respectfully submitted by:**

Howard Dickson - VE1DHD,  
Secretary



#### **Answer to puzzler on page 2**

**Answer:** Ernst Krenkel was the radio operator on the ice-breaker Chelyuskin which sank in ice off the coast of Siberia in 1933. Through his efforts the lives of 104 people were saved. As a result he was awarded one of the Soviet Union's highest decorations and was also allowed to retain RAEM, the callsign of the Chelyuskin, as his personal amateur call. This was only one story in his exciting life. For the full story of this fascinating man log on to:

[www.home.swipnet.se/sm5lq/raemeng.htm](http://www.home.swipnet.se/sm5lq/raemeng.htm)

#### **Silent Key**

From the ARRL Letter, Vol. 23, No. 28,

A well known name in cinema, Marlon Brando, KE6PZH/FO8GJ, died July 1, 2004. He was 80. Brando appeared in the FCC database under his real name, "Martin Brandeaux," while his FO8GJ listing indicates both his real and his screen names. He was on the air occasionally over the years as FO8GJ from his private island in French Polynesia.

Passed along by George Barbour,  
VE1GAB Dec.30/04

This is information on some of the activities in southeast Asia on Ham radio that has been passed on to me for distribution to anyone who is in a position to monitor the frequencies.

The info is originating from SATERN, the Salvation Army Team Emergency Radio Network.

SATERN personnel were monitoring amateur high frequencies yesterday hoping for news from the stricken area in SE Asia. IRLP (Internet Radio Linking Project) and echolink are two Internet/amateur radio interface programs being used also in the attempt to assist with emergency communications as needed.

Catherine Lawhun, the SATERN liaison for DERA (Disaster Preparedness and Emergency Response Association), has asked SATERN along with other amateur radio operators to help listen for missing NAIR (National Institute for Amateur Radio India) personnel. I am providing her information to all on my distribution list, as a potential for enlisting their help.

(Please pass this to your DX contacts and see if they can pick up any news of Mohan and the VU4 DXpedition)

No news from NIAR on status of the VU4 team.

All NIAR knows is what the Times of India is reporting, and that is very bad.

Team was last believed to be located at a hotel near the beach.

Apparently, there was no Tsunami warning sounded. According to NIAR, the VU4 DXpedition planned on using the following frequencies in case of emergency:

14.190 Mhz

21.240 Mhz

21.260 Mhz

From the ARRL Letter, Vol. 23, No. 43  
October 29, 2004

#### **DIGITAL BROADCAST TROUBLESOME TO SOME, EXPERIMENTAL OPPORTUNITY FOR OTHERS**

A digital broadcast signal on 3995 kHz has prompted some members of the amateur community to contact ARRL to say it's QRMing the top 10 kHz of 75 meters and asking what can be done about it. Not much, as it turns out. The signal, from Deutsche Welle in Germany, is legal since radio amateurs share that part of the band with broadcasters in Region 1 (which includes Europe). The international Radio Regulations do leave the door open to request that the station reduce power or change its antenna pattern, however.

"Digital shortwave will revolutionize cross-border broadcasts and will initiate a worldwide renaissance of radio," Deutsche Welle Director General Erik Bettermann said this month during a panel discussion at Munich Media Days. Deutsche Welle plans to gradually shut down its analog shortwave transmissions, he said, as DRM receivers became more available globally--something not anticipated until late 2005.

Although the station has been broadcasting for some time on the same frequency in conventional AM, it's attracted more notice from hams since July, when it began testing using digital format--also referred to as "DRM," (Digital Radio Mondiale, French for "Digital Radio Worldwide"). Of course, the vagaries of propagation will be a big factor as to the amount of interference US hams experience at any given time.

Radio amateurs meanwhile have been experimenting with programs such as HamDream <<http://www.qslnet.de/member/hb9tlk/>>, a DRM program adapted for Amateur Radio use by HB9TLK. It enables digital voice & data transmissions using bandwidths on the order of 2.3 to 2.5 kHz.

See [www.aidrac.ca](http://www.aidrac.ca)

## From the Mail Bag



I was just reading this month's (November) HARC Reflector and was quite interested in the article on page 3 regarding the "SUITSAT". What a great idea.... they could use the gloves as a receive antenna for "grabbing" the signals as they come in.... and use the boots as transmit antennas to sent the signal with a real good "kick".

Can you imagine if the suit was built for a female? Think of it... a pair of co-phased parabolic antennas for "C" band, depending on the previous owner.... we might even have the opportunity to work the satellite on 80 meters. Where's Dolly when we need her eh?

Terry R. Bigelow CD CPO2 Ret'd  
VE1TRB

Apparently there is a IRLP node up on 10M now. It is node 5857 in Whalley, England.  
It is simplex on 29.53 MHz...

Rob VE1KS

## Good Question

From: Terry Bigelow, VE1TRB  
To: Mike Bonnah, VE1WMW  
Subject: **Call plate query**  
Date: 13 Dec 2004



Mike;

Is RMV still issuing two plates with call signs? There seems to be a number of folks with just one plate mounted on their cars.

Terry R. Bigelow CD CPO2 Ret'd

## REPLY

From: Mike Bonnah  
To: Terry Bigelow  
Date: December 15, 2004



Hi Terry,  
Yes, two plates are still required for VE1 plates!

73 Mike

## Informal / Casual 2 Meter FM SSTV Net

QST QST!! Calling all amateurs!! As of Mid-November, Several "Hams" have been pondering the idea of SSTV over the 2 Meter Amateur band. As a result of several weeks of discussion & trial, there is now a somewhat informal SSTV Net, held on 146.490 Simplex. Although that frequency may be in dispute, the net will be held there, however temporarily, until a more suitable frequency can be designated. One of the frequencies being discussed, is 147.420 (simplex). Nevertheless, the SSTV net, will be held on 146.490 simplex, until further notice. The reason for holding this SSTV net on the 2 Meter FM band, is for those of us who don't have Sideband Capable Equipment, for one reason or another. In this case, there will be no "Designated" net control station. At this time, the net will be conducted specifically for SSTV, but we may ponder the realm of other digital modes, and pursue the idea of expanding the net to include them but for the time being, ... the net will be conducted ONLY for SSTV ... and see what happens as time progresses.

No Doubt there are now several questions left to be answered. The first of which is "What is SSTV?" SSTV (Slow Scan Television) is the means by which pictures are turned into data (in a similar manner as fax) and transmitted over Amateur frequencies using programs like MMSSTV. The next most commonly asked question is "What Is Needed?" All one needs to transmit & receive SSTV signals is a computer (minimum, a Pentium III) with at least a \*Creative SoundBlaster 16 soundcard, on which to install and use a program, known as "MMSSTV". MMSSTV can be downloaded from URL:

<http://mmhamsoft.ham-radio.ch/>

You'll also need a 2 Meter FM capable transceiver, with power supply, antenna & feedline. Set-up is just as easy. Once you have installed MMSSTV, onto your computer, it is then time to follow several easy steps. Oh!! Starting out, you will also need a pair of good quality headphones to plug into the output of the soundcard on your computer and a microphone, to plug into the Mic input of your soundcard, as so your computer will be able to "Hear" and process the signals being received from the radio. That is, until you are able to obtain the proper device to connect the computer to the radio.

Once the computer is connected to the radio, by the appropriate means, read the help files that come with "MMSSTV.exe", and set transmit & Receive volume accordingly, and you are ready to send and receive slow scan television pictures, as well as learn while enjoying a different mode of the realm of Amateur Radio. When is the net held? On Monday and Thursday evenings, after 19:00 PM, locally on 146.490 (simplex). Just listen to the frequency to see that no other stations are transmitting, and then key the microphone on the radio and put out a "QRL", asking if the frequency is in use, and your call sign. Following the instructions that came with MMSSTV, find a "JPG" file on your computer, ... One of appropriate stature, and place it into the transmit window, , and transmit a 1750 Hz tone, and transmit the picture. It is recommended that a call sign template is used. Who Knows? There may be someone else on frequency, with an SSTV picture to transmit, and it makes a great pastime, on those cold winter nights, when it isn't fit for man or beast, outside.

Article Submitted to the HARC Reflector By: J. Smith - VE1SFX

*If lawyers are disbarred and clergymen defrocked, doesn't it follow that electricians can be delighted, musicians denoted, cowboys deranged, models deposed, tree surgeons debarked, and dry cleaners depressed?*



## DXing & Contesting

### HF Propagation Predictions for 2005 or

#### *How the Sun Effects Radio Waves*

by D. Howard Dickson – VE1DHD

I was ecstatic when I passed my 12-wpm CW exam in the spring of 1995, and was eager to get onto the HF bands. However, it was the worst possible time to be setting up an HF station – believe me! We were at the bottom of sunspot cycle #22, which was coming to an end. The prospect at the time for good long-range propagation was dismal for at least the next five years. The reason is that long-range HF propagation is a result of signal “*multi-hop*”, which is dependent upon the degree to which the ionosphere is ionized, and this is in turn directly related to the number of sunspots. As it turns out, the solar flux index correlates well with sunspot numbers and so we Radio Amateurs use this index as a way of predicting the quality of HF propagation.

Fast forward to 2005, and we are now in just about the same position that I was in 1995, and HF propagation is getting worse by the month. As a result, I thought that it might be timely to provide a bit of a tutorial on the relationship between sunspot numbers and HF propagation. In teaching the propagation chapter this year for the HARC Basic Amateur Radio Course, I found that it was good to review the theory in preparation for teaching it. I hope that you find this review worthwhile too.

The following tutorial was compiled in part from excerpts taken from: **the NASA page on the Sunspot Cycle** –

<http://science.msfc.nasa.gov/ssl/pad/solar/sunspots.htm>

**The Sun, the Earth, the Ionosphere: What the Numbers Mean, and Propagation Predictions--a brief introduction to propagation and the major factors affecting it.** By Carl Luetzelshwab, K9LA

<http://www.arrrl.org/tis/info/k9la-prop.html>

### Sunspot Numbers

As far as we know, it was Galileo who made the first observations of sunspots (Fig. #1) in 1610. However, it was not until 1749 that daily observations were started at the Zurich Observatory. Over the years, monthly averages of sunspot numbers have shown us that the number of sunspots visible on the sun waxes and wanes in approximately an 11-year cycle.

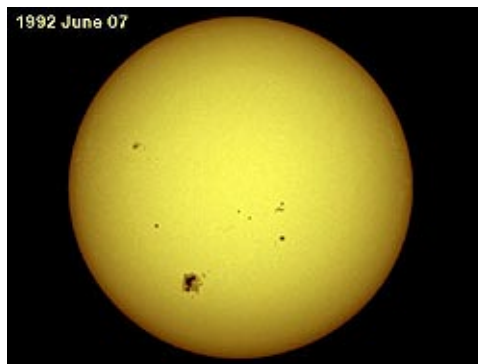


Fig. #1 – Sunspots

### Sunspot Cycle Predictions

Although sunspots themselves produce only minor effects on solar emissions, the magnetic activity that accompanies sunspots produces dramatic changes in the sun's ultraviolet and soft x-ray emission levels. Over the solar cycle, these changes have important consequences for the Earth's upper atmosphere – *the ionosphere*, because it is the ionization of the ionosphere that results in the ability to propagate HF radio waves around the world. Fortunately for us, predicting the behaviour of a sunspot cycle is now fairly reliable once the cycle is well underway (about 3 years after the minimum in sunspot number occurs).

#### The Sun's Electromagnetic Radiation

One indicator of the level of solar activity that correlates well with sunspot numbers is *solar flux* – the emission of radio waves from the Sun at a wavelength of 10.7 cm (2.8 GHz fre-

quency). Solar flux has now been measured daily since 1947, and it has become relied upon by Radio Amateurs as an important indicator of solar activity because it tends to follow the changes in the solar ultraviolet emissions that influence the Earth's upper atmosphere and ionosphere.

The sun emits several forms of electromagnetic radiation that effect our upper atmosphere:

- ultraviolet radiation ionizes the F region
- soft X-rays ionize the E region, and
- hard X- rays ionize the D region.

### Solar Wind

Solar matter, (i.e. electrons and protons) is ejected from the sun on a regular basis, and results in what we know as the solar wind. Solar storms (Fig. #2) occur when this solar wind becomes intense, and this can happen very quickly, with dramatic disruption to radio communication on Earth.

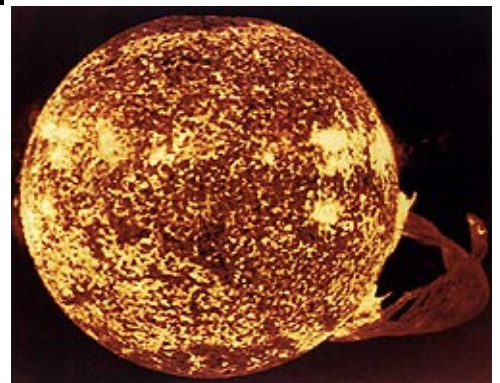


Fig. #2 – Sun showing solar storm activity on the surface

The sun's solar wind is important because of its significant impact on the Earth's magnetic field. The Earth's magnetic field is normally compressed by the solar wind on the side facing the sun and is stretched out on the side away from the sun (the magnetotail, which extends tens of earth radii downwind) – see Fig. #3. While the sun's electromagnetic radiation can impact the entire ionosphere that is in daylight, the charged particles ejected by the sun behave differently. They are guided preferentially into

the ionosphere along magnetic field lines and thus they preferentially impact the higher latitudes where the magnetic field lines go into the Earth. The result of intense bombardment of the upper atmosphere by solar matter is an impressive nocturnal light display – the “Aurora Borealis”. The Northern Lights can give rise to very intense ionization of the E-layer resulting in much improved propagation on 6-meters as an example. Thus Earth's magnetic field plays an important and critical role in propagation.

### **The Earth's Magnetic Field and the A & K Indices**

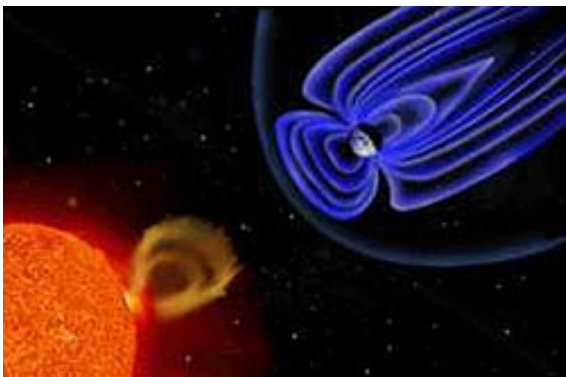


Fig. #3 – Sun lower left showing a solar storm; Earth at upper right showing the magnetic field in blue.

Variations in the Earth's magnetic field are measured daily. Two measurements that Radio Amateurs use on a regular basis are the daily A index and the three-hour K index. The A index is an average of eight 3-hour K indices, and uses a linear scale that goes from 0 (quiet) to 400 (severe storm). The K index uses a semi-logarithmic scale, which goes from 0 to 9 (with 0 being quiet and 9 being a severe storm). Generally speaking, an A index at or below 15 or a K index at or below 3 is best for propagation. The following web site provides an excellent and current summary of HF propagation information - <http://dx.qsl.net/propagation/>.

### **The 11-year Solar Cycle & Radio Propagation**

As we now know, sunspots come and go in an approximate 11-year cycle. The rise to maximum occurs over 4 to 5 years, and is usually faster than the descent to minimum, which takes from 6 to 7 years.

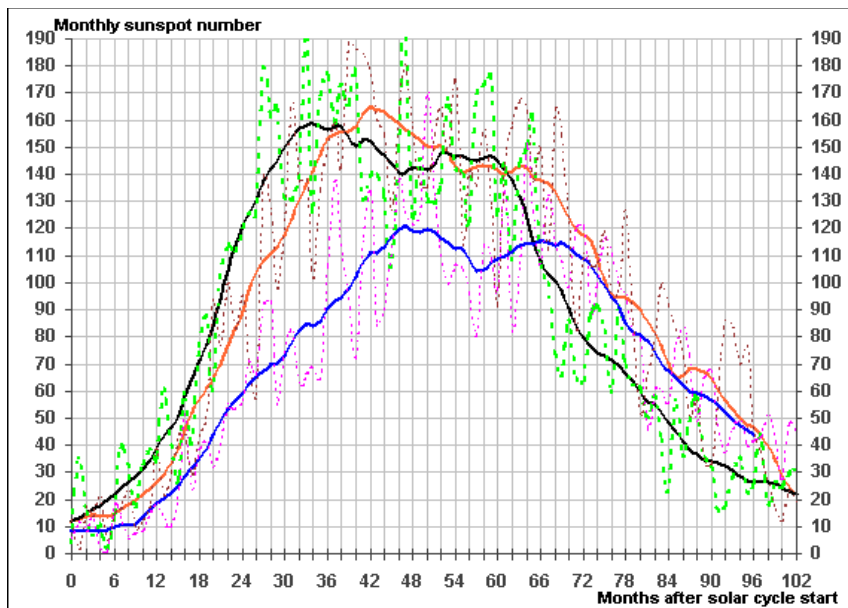
Near the maximum of a solar cycle, the increased number of sunspots causes more ul-

traviolet radiation to impinge on the atmosphere, resulting in significantly more F region ionization. This in turn allows the ionosphere to refract higher frequencies (15, 12, 10, and even 6 meters) back to Earth, supporting improved DX contacts.

At and near the minimum between solar cycles, the number of sunspots is so low that higher frequencies go through the ionosphere into space. However, when we have a solar minimum there is less absorption of radio waves by the lower levels of the ionosphere, and as a result, we enjoy the best propagation on the lower frequencies (160 and 80 meters).

### **Where are we now in the Current Sunspot Cycle?**

As this piece was being written in late December 2004, the average daily sunspot number had declined to 26.9, and average solar flux was down to 88.7. Sunspot counts have been quite low, and will continue their retreat for about two more years. However, the long-range prediction for this cycle (the predicted smoothed sunspot number) for December 2005 it is 10, and the lowest value is projected to be five sometime in December 2006 or January 2007. **So, we are not at the bottom of cycle 22 yet!**



**Cycle 21** started in June 1976 and lasted 10 years and 3 months.

**Cycle 22** started in September 1986 and lasted 9 years and 8 months.

**Cycle 23** started in May 1996.

On an optimistic note, once we get past December 2008, the monthly sunspot count for cycle 24 should start to increase rapidly. In the meantime, there could be some long spells with no sunspots at all.

Looking on the bright side of things, remember that cycles rise faster than they decline, and so we should be seeing improved HF propagation conditions in about three or four years from now, sometime in 2008 or 2009.

*Experience is something  
you don't get until  
just after you need it.*

Information about BPL & Amateur Radio is on the ARRL Web site  
<http://www.arrl.org/tis/info/HTML/plc/>